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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/977,684

10/16/2001

Dong-Gyu Kim

3843

32605

7590

12/01/2006

MACPHERSON KWOK CHEN & HEID LLP
2033 GATEWAY PLACE
SUITE 400
SAN JOSE, CA 95110

EXAMINER

NGUYEN, DUNG T

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,684

Applicant(s)

KIM, DONG-GYU

Examiner

Dung Nguyen

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 8-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-7, 20-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's response dated 08/31/2006 has been received and entered. Claims 6-7 and 20-25 are remain pending in the application. Claims 1-5 and 8-19 stand withdrawn from consideration.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claim 6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuyama et al., US Patent No. 5633,739, in view of Takao et al., US Patent No. 5,568,293.

Regarding claim 6, Matsuyama disclose a method for fabricating a liquid crystal display (LCD)(figure 11a-11e) comprising the step of:

- . forming a black matrix (BM) on a substrate (SUB2);
- . forming a plurality of color filters (FIL(B/R/G)), each the color filter has a flat central portion and a peripheral portion.

Matsuyama et al, however, do not disclose the peripheral portions of the neighboring color filter overlap each other and having a taper angle less than 40 degrees. Takao et al. do disclose a color filter (B/G/R) can be overlapped to each other with a taper angle less than 40 degrees (respect to the normal line). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to modify the Matsuyama et al. color filter having at least a part of the peripheral portion overlapping to each other with a taper angle less than 40 degrees as shown by Takao et al. in order to reduce alignment effect (col. 2, ln 9-13).

Art Unit: 2871

3. Claim 7 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuyama et al., US Patent No. 5633,739, in view of Takao et al., US Patent No. 5,568,293, further in view of Nakamura et al., US Patent No. 5,725,975.

Regarding claim 7, the modification to Matsuyama et al. disclose the claimed invention as stated above except for using a mask to pattern the color filter. Nakamura et al. do disclose a mask having three different regions as claimed for forming a color filter (figure 5B, col. 6). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to use a mask having three different regions making the Matsuyama et al color filter as shown by Nakamura et al. in order to obtain a high accuracy and efficiency at a low cost (col. 2, ln 24-29).

4. Claims 20-25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuyama et al., US Patent No. 5633,739, in view of Takao et al., US Patent No. 5,568,293, further in view of Kim, US Patent No. 6,567,150.

Regarding the above claims, the modification to Matsuyama et al. disclose the claimed invention as stated above except for the step of forming a plurality of gate/data lines, a thin film transistor (TFT). Kim does disclose the step of forming a plurality of gate lines, a plurality of data lines as well as a TFT (bridging paragraph from col. 1 to col. 2) Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to employ the Matsuyama et al. device a plurality of gate/data lines and a TFT as shown by Kim for display driving purposes.

Response to Arguments

5. Applicant's arguments filed 08/31/2006 have been fully considered but they are not persuasive.

Regarding claim 6, Applicant contends that the modification to Matsuyama (I view of Takao) would destroy the intent, purpose and function of the invention disclosed in both Matsuyama and Takao since both Matsuyama and Takao teach away from such a modification. The Examiner respectfully disagrees with Applicant's viewpoint. In particular, as asserted by Applicant, Matsuyama teaches a protective area for protecting against dye diffusion filling the gaps between the color patterns and Takao discloses an overlap of the peripheral portions of adjacent color filters; therefore, the modification to Matsuyama would result a small gap of color filter therebetween (i.e. against dye diffusion). In addition, the modification would not remove all Matsuyama structures (e.g., protective overcoat layer, black matrix), and the modification is just applying a method of forming an overlapped color filter to the Matsuyama color filter to reduce alignment effect during manufacturing, so as the such color filter would be overlapped over the black matrix part. In other words, such combination of Matsuyama et al. and Takao et al. would take an advantage of aligning color filter into the Matsuyama color filter without destroy the Matsuyama et al. device.

In brief, Takao et al. do not teach away from the Matsuyama et al. invention; one of ordinary skilled in the art would be able to modify the Matsuyama et al. color filter as shown by Takao et al. as stated above. Therefore, such modification to Matsuyama et al device would have been obvious to one skilled in the art.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2871

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN
11/27/2006

A handwritten signature in black ink, appearing to read 'Dung Nguyen', with a long horizontal flourish extending to the right.

Dung Nguyen
Primary Examiner
Art Unit 2871